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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER

ABEL JALIL, NEVEEN

ART UNIT

PAPER NUMBER

2165

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DELIVERY MODE

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/835,064	Applicant(s) GIUFFRIDA ET AL.	
	Examiner NEVEEN ABEL JALIL	Art Unit 2165	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 December 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Remarks

1. In response to Applicant's Amendment filed on December 29, 2008, claims 1-20 are pending in the application.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1, 4-8, 9, and 12-16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Copperman et al. (U.S. Patent No. 6,711,585 B1) as in view of Adamske et al. (U.S. Patent No. 6,615,234 B1).

As to claims 1, and 9, Copperman et al. discloses an apparatus for automatically extracting metadata from electronic documents comprising a first processing element, a second processing element, a reasoning element, and a database, wherein,

- i) said first processing element is further configured to convert electronic documents into files (See column 12, lines 62-67, also see abstract);
- ii) said first processing element is configured to provide the files to a second processing element (See column 18, lines 7-10, and see column 18, lines 44-48);

iii) said second processing element is configured to receive said files and extract predetermined information (See column 2, lines 21-24);

iv) said second processing element is further configured to provide said extracted predetermined information to said reasoning element (See column 2, lines 25-31);

v) said database is configured to also provide input to said reasoning element (See column 13, lines 1-10);

vi) said reasoning element is configured to employ a set of rules to automatically extract metadata from the files by employing the extracted predetermined information and the input from the database (See column 12, lines 45-51, also see column 13, lines 37-63, wherein “reasoning element” is the processing and analysis done by the “autocontextualization”); and

vii) reasoning element provides an output of metadata (See Figure 22).

Copperman et al. discloses the claimed invention while teachings files are substantially format invariant data file in column 12, lines 62-67, but is not directed to the conversion of electronic documents into PostScript files.

Adamske et al. teaches the conversion of electronic documents into PostScript files (See Adamske et al. Abstract, and see Adamske et al. column 5, lines 34-46).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Copperman et al. by the teaching of Adamske et al. to include the conversion of electronic documents into PostScript files because it allows for portability and accessibility across communication networks, and machines (ease of printing).

As to claims 4, and 12, Copperman et al. as modified discloses wherein the second processing element and said database simultaneously input to the reasoning element (See Copperman et al. Figure 5, 510, Copperman et al. column 9, lines 38-58).

As to claims 5, and 13, Copperman et al. as modified discloses wherein said set of rules is updated (See Copperman et al. column 16, lines 1-13).

As to claims 6, and 14, Copperman et al. as modified discloses wherein said metadata is substantially comprised of title, author, affiliation, author affiliation, and table of contents (See Figure 2, and see column 13, lines 41-50).

As to claims 7, and 15, Copperman et al. as modified discloses wherein said metadata is provided to a user interface (See Copperman et al. Figure 21).

As to claims 8, and 16, Copperman et al. as modified discloses wherein said metadata is provided to a storage medium (See Copperman et al. Figure 2, also see Copperman et al. column 18, lines 44-48).

3. Claims 3, 11, 17, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Copperman et al. (U.S. Patent No. 6,711,585 B1) in view of Adamske et al. (U.S. Patent No. 6,615,234 B1), and further in view of Mahoney et al. (U.S. Patent No. 5,999,664)

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As to claims 3 and 11, Copperman et al. teaches the claimed invention but does not explicitly teach wherein said predetermined information is substantially spatial layout facts. However, Copperman et al. teaches maintaining and considering topical distance relationships as well as boundaries of the original document (See Copperman et al. column 16, lines 41-59).

Copperman et al. still does not teach the spatial layout facts being augmented strings of text, where each spatial layout fact contains a string of text and spatial data regarding the string of text.

Mahoney et al. teaches extracting special layout facts (See Mahoney et al. Abstract), and the spatial layout facts being augmented strings of text, where each spatial layout fact contains a string of text and spatial data regarding the string of text (See Mahoney et al. column 4, lines 47-64, and see Mahoney et al. column 8, lines 25-38, and Mahoney et al. column 10, lines 49-67).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have further modified Copperman et al. as modified by the teaching of Mahoney et al. to include wherein said predetermined information is substantially spatial layout facts because it provides for accurate document presentation to the users (See Mahoney et al. column 2, lines 30-36).

As to claims 17, and 19, Copperman et al. as modified still does not teach wherein each string of text is bound by a bounding box and wherein the spatial data includes:

a) a page number of the electronic document where the string of text appears;

b) an absolute line counter order for each string of text;

c) an x-y location of a lower left corner of a bounding box bounding the string of text;

d) an x-y location of an upper right corner of the bounding box; and e) font metrics of bounding box extensions used to represent the string of text.

Mahoney et al. teaches wherein each string of text is bound by a bounding box and wherein the spatial data includes:

a) a page number of the electronic document where the string of text appears (See , wherein it is inherent that pages are numbers for ease of locating);

b) an absolute line counter order for each string of text (See column 10, Table 1);

c) an x-y location of a lower left corner of a bounding box bounding the string of text (See column 11, Table 2, wherein the location can be defined as desired);

d) an x-y location of an upper right corner of the bounding box (See column 11, Table 2);

and

e) font metrics of bounding box extensions used to represent the string of text (See column 27, lines 55-65).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have further modified Copperman et al. as modified by the teaching of Mahoney et al. to include specified text bounding boxes because its well known method of extracting and ordering structure layout for document presentation for consistency and accuracy.

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4. Claims 18 and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Copperman et al. (U.S. Patent No. 6,711,585 B1) in view of Adamske et al. (U.S. Patent No. 6,615,234 B1), and further in view of DX Le, & GR Thoma. Automated document labeling using integrated image and neural processing published in 1999 (from hereon in Le et al.).

As to claims 18, and 20, Copperman et al. as modified teaches wherein the document includes at least a first page and text with a small font and other text with a large font, and wherein the set of rules include:

Copperman et al. as modified does not teach

a) a rule for extracting a title of the document, such that the title is identified as being located on an upper portion of the first page of the document and is printed using the large font;

b) a rule for extracting authors of the document, such that authors are identified as being listed immediately under the title in some order;

c) a rule for extracting author affiliations, such that author affiliations are identified as being located as text following the authors; and

d) a rule for affiliating the authors with the author affiliations such that if only one affiliation appears, then all authors are associated with the one affiliation.

Le et al. teaches wherein the set of rules include:

a) a rule for extracting a title of the document, such that the title is identified as being located on an upper portion of the first page of the document and is printed using the large font (See section 3, wherein it is inherent that the title is in larger font to be visually noticeable);

b) a rule for extracting authors of the document, such that authors are identified as being listed immediately under the title in some order (See section 3);

c) a rule for extracting author affiliations, such that author affiliations are identified as being located as text following the authors (See section 3); and

d) a rule for affiliating the authors with the author affiliations such that if only one affiliation appears, then all authors are associated with the one affiliation (See section 3, wherein it is inherent that multiple authors collaborate together typically from a single affiliation).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have further modified Copperman et al. as modified by the teaching of Le et al. to include the defining specific rules for the layout since not only is it well known in the art that rules are user defined but that document showing title, order, affiliation in that order have become well known standards for technical publications on the internet.

Response to Arguments

5. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. For complete list of cited relevant prior art, see PTO-Form 892.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Neveen Abel-Jalil whose telephone number is 571-272-4074. The examiner can normally be reached on 8:30AM-5:30PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christian Chace can be reached on 571-272-4190. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Neveen Abel-Jalil
Primary Examiner
April 7, 2009

/Neveen Abel-Jalil/

Primary Examiner, Art Unit 2165